his

(FILE 'HOME' ENTERED AT 09:43:16 ON 09 NOV 2004)

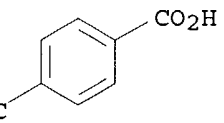
FILE 'CAPLUS' ENTERED AT 09:43:22 ON 09 NOV 2004
635 S 100-21-0/PROC
2674 S 100-21-0/PREP
443 S 100-21-0/PUR
3162 S L1 OR L2 OR L3
173 S L4 AND SLURRY
21 S L4 AND HEAT EXCHANG?
0 S L6 AND CRYSTALLIZER
2 S L6 AND CRYSTAL?
2 S L4 AND HEAT EXCHANG? AND HYDROGEN?

ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
ESSION NUMBER: 1991:493159 CAPLUS
UMENT NUMBER: 115:93159
LE: Improved heating process in purification of terephthalic acid by **hydrogenation**
ENTOR(S): Koch, Joachim; Koehler, Hartmut; Duelsen, Uwe; Wittkopf, Egon; Richter, Gerfried; Gollasch, Ralf; Noske, Lothar; Krentzlin, Wolf Ruediger; John, Karl Heinz
ENT ASSIGNEE(S): VEB Petrolchemisches Kombinat Schwedt, Germany
RCE: Ger. (East), 5 pp.
CODEN: GEXXA8
UMENT TYPE: Patent
GUAGE: German
ILY ACC. NUM. COUNT: 1
ENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 289891	A7	19910516	DD 1989-326797	19890322
ORITY APPLN. INFO.:			DD 1989-326797	19890322

An aqueous suspension of terephthalic acid (I) is heated to 277-287° in a series of **heat exchangers** under controlled conditions to prevent blockage of tubes in the **heat exchangers**. The heating process is useful in a **hydrogenation** process for the preparation of purified I.

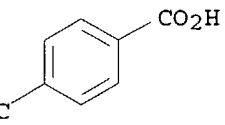
100-21-0P, Terephthalic acid, preparation
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(manufacture of, purification by **hydrogenation** in, heating in)
100-21-0 CAPLUS
1,4-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)



ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
ESSION NUMBER: 1988:634900 CAPLUS
UMENT NUMBER: 109:234900
LE: Study on the breaking of titanium **heat exchanger** pipes because of corrosion of the deflectors
HOR(S): Martinez, E.
PORATE SOURCE: Intercontinental Quim., S.A., Madrid, Spain
RCE: Revista Iberoamericana de Corrosion y Proteccion (1988), 19(3), 159-61
CODEN: RCPRDQ; ISSN: 0210-6604
UMENT TYPE: Journal
GUAGE: Spanish

The Ti **heat exchanger** pipes in contact with the deflector, underwent formation of brittle crystalline hydrides, by reaction with H evolved from corrosion of C steel deflectors. Deflectors manufactured with AISI-304 are more resistant to corrosion. The **heat exchanger** is used for heating residue streams with steam in a terephthalic acid manufacturing plant.

100-21-0P, Terephthalic acid, uses and miscellaneous
RL: PEP (Physical, engineering or chemical process); **PREP (Preparation)**; **PROC (Process)**
(manufacture of, rupture of titanium **heat exchanger** tubes in, in contact with steel deflectors)
100-21-0 CAPLUS
1,4-Benzenedicarboxylic acid (9CI) (CA INDEX NAME)


CO2H

(FILE 'HOME' ENTERED AT 15:39:13 ON 09 NOV 2004)

FILE 'CAPLUS' ENTERED AT 15:39:24 ON 09 NOV 2004
STRUCTURE UPLOADED
S L1

FILE 'REGISTRY' ENTERED AT 15:39:44 ON 09 NOV 2004
14 S L1

FILE 'CAPLUS' ENTERED AT 15:39:45 ON 09 NOV 2004
14 S L2
S L1

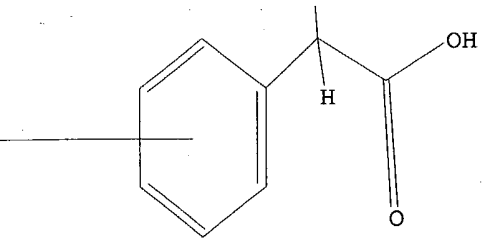
FILE 'REGISTRY' ENTERED AT 15:39:50 ON 09 NOV 2004
2634 S L1 FULL

FILE 'CAPLUS' ENTERED AT 15:39:52 ON 09 NOV 2004
4967 S L4 FULL
0 S L5 AND TRIFLUORPHENYLACETIC ACID
61 S L5 AND MAGNESIUM
0 S L7 AND ALLYLAT?
0 S L7 AND TRIFLUOROBENZENE
3 S L5 AND TRIFLUOROBENZENE

ading C:\STNEXP4\QUERIES\0025.str

STRUCTURE UPLOADED

AS NO ANSWERS
STR



cture attributes must be viewed using STN Express query preparation.

l1
EGlstRY INITIATED
tance data SEARCH and crossover from CAS REGISTRY in progress...
DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

LE SEARCH INITIATED 15:39:44 FILE 'REGISTRY'
LE SCREEN SEARCH COMPLETED - 5746 TO ITERATE

4% PROCESSED 1000 ITERATIONS 14 ANSWERS
MPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
CH TIME: 00.00.01

FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
ECTED ITERATIONS: 110376 TO 119464
ECTED ANSWERS: 1070 TO 2146

14 SEA SSS SAM L1

14 L2

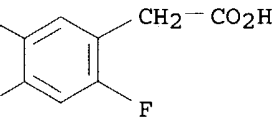
l1 full
EGlstRY INITIATED
tance data SEARCH and crossover from CAS REGISTRY in progress...
DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SEARCH INITIATED 15:39:51 FILE 'REGISTRY'
SCREEN SEARCH COMPLETED - 113959 TO ITERATE

0% PROCESSED 113959 ITERATIONS 2634 ANSWERS
CH TIME: 00.00.01

2634 SEA SSS FUL L1

```
>        4967 L4

> s l5 and trifluorphenylacetic acid
            0 TRIFLUORPHENYLACETIC
      3895729 ACID
            0 TRIFLUORPHENYLACETIC ACID
                (TRIFLUORPHENYLACETIC(W)ACID)
5           0 L5 AND TRIFLUORPHENYLACETIC ACID

> s l5 and magnesium
       413454 MAGNESIUM
7           61 L5 AND MAGNESIUM

> s l7 and allylat?
         7207 ALLYLAT?
3           0 L7 AND ALLYLAT?

> s l7 and trifluorobenzene
          589 TRIFLUOROBENZENE
9           0 L7 AND TRIFLUOROBENZENE

> s l5 and trifluorobenzene
          589 TRIFLUOROBENZENE
10          3 L5 AND TRIFLUOROBENZENE

> d 1-3 ibib abs hitstr

10  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2004 ACS on STN
CCESSION NUMBER:        2004:331830  CAPLUS
OCUMENT NUMBER:         140:339071
ITLE:                   Allylation and oxidation process for the preparation
                        of trifluorophenylacetic acids from trifluorophenyl
                        halides and allyl bromide
NVENTOR(S):             Ikemoto, Norihiro; Dreher, Spencer D.
ATENT ASSIGNEE(S):      USA
OURCE:                  U.S. Pat. Appl. Publ., 5 pp.
                        CODEN: USXXCO
OCUMENT TYPE:           Patent
ANGUAGE:                English
AMILY ACC. NUM. COUNT:  1
ATENT INFORMATION:

    PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
    ----------------    ----   --------    --------------------    --------
    US 2004077901        A1    20040422    US 2003-680025          20031007
RIORITY APPLN. INFO.:                       US 2002-416891P     P   20021008
THER SOURCE(S):         CASREACT 140:339071; MARPAT 140:339071
B   Trifluorophenylacetic acids [e.g., (2,4,5-Trifluorophenyl)acetic acid] are
    prepared in high yield and selectivity by using a Grignard reagent (e.g.,
    isopropylmagnesium chloride) and an allylating agent (e.g., allyl bromide)
    to allylate a halotrifluorobenzene (e.g., 1-bromo-2,4,5-
    trifluorobenzene) to give an allyltrifluorobenzene (e.g.,
    1-allyl-2,4,5-trifluorobenzene) which is then subjected to
    catalytic (e.g., RuCl3) oxidation with an oxidant (e.g., sodium periodate).
T   209995-38-0P, (2,4,5-Trifluorophenyl)acetic acid
    RL: SPN (Synthetic preparation); PREP (Preparation)
       (allylation and oxidation process for the preparation of trifluorophenylacetic
       acids from trifluorophenyl halides and allyl bromide)
N   209995-38-0  CAPLUS
N   Benzeneacetic acid, 2,4,5-trifluoro- (9CI)  (CA INDEX NAME)
```



0 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
CCESSION NUMBER: 2004:293442 CAPLUS
CUMENT NUMBER: 140:321111
TLE: Process for the synthesis of (trifluorophenyl)acetic acids
VENTOR(S): Armstrong, Joseph D.; Dreher, Spencer D.; Ikemoto, Norihiro
TENT ASSIGNEE(S): USA
URCE: U.S. Pat. Appl. Publ., 6 pp., which
CODEN: USXXCO
CUMENT TYPE: Patent
NGUAGE: English
MILY ACC. NUM. COUNT: 1
TENT INFORMATION:

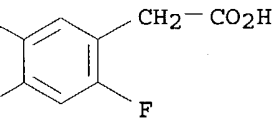
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004068141	A1	20040408	US 2003-679986		20031007
IORITY APPLN. INFO.:			US 2002-416790P	P	20021008

THER SOURCE(S): CASREACT 140:321111; MARPAT 140:321111

Trifluorophenylacetic acids (e.g., 2,4,5-trifluorophenylacetic acid (I)) are prepared in high yield and selectivity by the trifluorophenylation of a dialkyl malonate (e.g., di-Et malonate) with a trifluorophenyl halide (e.g., 1-bromo-2,4,5-**trifluorobenzene**) in the presence of a deprotonating agent (e.g., sodium tert-butoxide) using a Cu(I) salt (e.g., cuprous chloride) as a catalyst to give a dialkyl (trifluorophenyl)malonate intermediate [e.g., di-Et 2-(2,4,5-trifluorophenyl)malonate] which is subjected to saponification with a base (e.g., NaOH) and decarboxylation of the (trifluorophenyl)malonic acid [e.g., 2-(2,4,5-trifluorophenyl)malonic acid] with an acid (e.g., aqueous hydrogen chloride) to produce I.

T **209995-38-0P**, (2,4,5-Trifluorophenyl)acetic acid
RL: SPN (Synthetic preparation); PREP (Preparation)
(process for the synthesis of (trifluorophenyl)acetic acids)

N 209995-38-0 CAPLUS
N Benzeneacetic acid, 2,4,5-trifluoro- (9CI) (CA INDEX NAME)



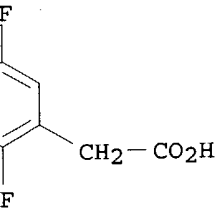
10 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
CCESSION NUMBER: 1998:14123 CAPLUS
OCUMENT NUMBER: 128:127795
ITLE: Synthesis of (dihalophenyl)acetic acids using aromatic nucleophilic substitution strategy
UTHOR(S): Kowalczyk, Bruce A.
ORPORATE SOURCE: Roche Bioscience, Palo Alto, CA, 94304, USA
OURCE: Synthesis (1997), (12), 1411-1414
CODEN: SYNTBF; ISSN: 0039-7881
UBLISHER: Georg Thieme Verlag
OCUMENT TYPE: Journal
ANGUAGE: English
THER SOURCE(S): CASREACT 128:127795

B A simple synthetic strategy to (dihalophenyl)acetates and specifically (3,5-difluorophenyl)acetate an important pharmaceutical intermediate was developed. The aromatic nucleophilic substitution of dihalofluorobenzenes using the anion of cyanoacetate yielded (dihalophenyl)cyanoacetates. Basic decarboxylation of the latter produced targeted (dihalophenyl)acetates.

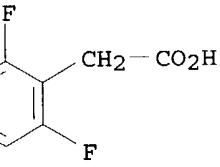
T **85068-27-5P 85068-28-6P 105184-38-1P**
145689-41-4P 188347-49-1P 202000-99-5P
202001-00-1P 202001-01-2P
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of (halophenyl)acetates by aromatic nucleophilic substitution)

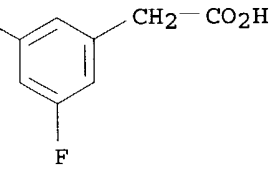
85068-27-5 CAPLUS
Benzeneacetic acid, 2,5-difluoro- (9CI) (CA INDEX NAME)



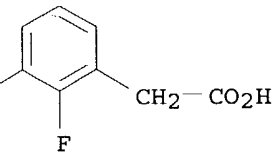
85068-28-6 CAPLUS
Benzeneacetic acid, 2,6-difluoro- (9CI) (CA INDEX NAME)



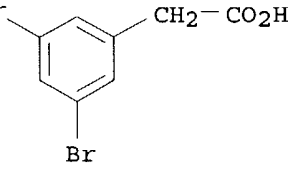
105184-38-1 CAPLUS
Benzeneacetic acid, 3,5-difluoro- (9CI) (CA INDEX NAME)



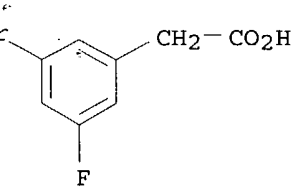
145689-41-4 CAPLUS
Benzeneacetic acid, 2,3-difluoro- (9CI) (CA INDEX NAME)



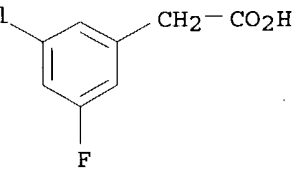
188347-49-1 CAPLUS
Benzeneacetic acid, 3,5-dibromo- (9CI) (CA INDEX NAME)



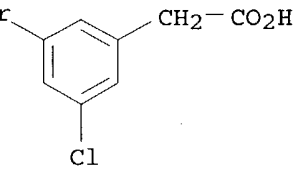
202000-99-5 CAPLUS
Benzeneacetic acid, 3-bromo-5-fluoro- (9CI) (CA INDEX NAME)

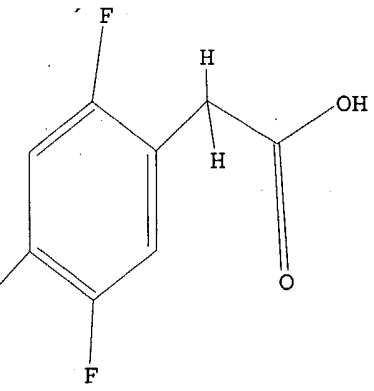


N 202001-00-1 CAPLUS
N Benzeneacetic acid, 3-chloro-5-fluoro- (9CI) (CA INDEX NAME)



N 202001-01-2 CAPLUS
N Benzeneacetic acid, 3-bromo-5-chloro- (9CI) (CA INDEX NAME)





ıructure attributes must be viewed using STN Express query preparation.

> s l23
REGlstRY INITIATED
ubstance data SEARCH and crossover from CAS REGISTRY in progress...
se DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

AMPLE SEARCH INITIATED 16:03:00 FILE 'REGISTRY'
AMPLE SCREEN SEARCH COMPLETED - 17 TO ITERATE

00.0% PROCESSED 17 ITERATIONS 1 ANSWERS
EARCH TIME: 00.00.01

ULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
ROJECTED ITERATIONS: 93 TO 587
ROJECTED ANSWERS: 1 TO 80

24 1 SEA SSS SAM L23

25 3 L24

> d ibib abs hitstr

25 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
CCESSION NUMBER: 1997:521626 CAPLUS
OCUMENT NUMBER: 127:220366
ITLE: Part 70. Supramolecular chemistry Non-covalent interactions in host-guest complexes with fluorinated phenyl compounds
UTHOR(S): Fei, Xiao; Hui, Yong-Zheng; Rudiger, Volker; Schneider, Hans-Jorg
ORPORATE SOURCE: Shanghai Institute of Organic Chemistry, Academia Sinica, Shanghai, 200032, Peop. Rep. China
OURCE: Journal of Physical Organic Chemistry (1997), 10(5), 305-310
CODEN: JPOCEE; ISSN: 0894-3230
UBLISHER: Wiley
OCUMENT TYPE: Journal
ANGUAGE: English
B Complexation consts. with the macrocyclic azoniacyclophane CP44 and Ph guest compds. with at least four fluorine atoms or alternatively protons at the ring were obtained by NMR shift titrns. in water. The fluorinated compds. show free energies of complexation which are smaller by

ΔΔG=3.4-7.7kJ mol-1 in comparison with the protonated compds. The NMR shifts induced upon 100% complexation (CIS values) were obtained simultaneously from non-linear least-squares fitting and indicate intra-cavity inclusion in all cases. The CIS values agree roughly with screening consts. calculated from aromatic ring current and linear elec. field effects, the latter resulting from the permanent charges at the host compound Mol. mechanics calcns. (CHARMm) indicate that intracavity inclusion is possible with all compds. with negligible strain induced (<1 kJ mol-1) in the macrocycle upon complexation. In contrast, α-cyclodextrin can accommodate fluorinated Ph compds. only at the rim of the cavity without larger strain. Preliminary data with α-cyclodextrin, obtained by competitive UV-visible titration with methyl orange, indicate again a smaller association free energy (ΔΔG=1.-7 kJ mol-1) for pentafluorophenol compared with normal phenol as guest.

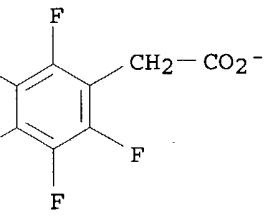
54006-37-0

RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(supramol. chemical and noncovalent interactions in host-guest complexes with fluorinated benzene compds.)

54006-37-0 CAPLUS

Benzeneacetic acid, 2,3,4,5,6-pentafluoro-, ion(1-) (9CI) (CA INDEX NAME)



FERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

d 2-3 ibib abs hitstr

5 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

CESSION NUMBER: 1989:422954 CAPLUS

CUMENT NUMBER: 111:22954

TLE: Gas phase ion chemistry of the acetic acid enolate anion [CH2CO2H]-

THOR(S): O'Hair, Richard A. J.; Gronert, Scott; DePuy, Charles H.; Bowie, John H.

RPORATE SOURCE: Dep. Org. Chem., Univ. Adelaide, Adelaide, 5001, Australia

URCE: Journal of the American Chemical Society (1989), 111(8), 3105-6
CODEN: JACSAT; ISSN: 0002-7863

CUMENT TYPE: Journal

NGUAGE: English

F- and Me3SiCH2CO2H gives [CH2CO2H]- (I) and Me3SiF in the gas phase. The ion mol. chemical of I is examined in a tandem flowing afterglow SIFT instrument. This basic anion (ΔG°acid[CH3CO2H] = 363 ± 3 kcal mol-1) abstrs. D from MeOD to yield CH2DCO2-, reacts with C6F6 to form C6F5CH2CO2-, and forms HOSO2- and HOCO2- by reaction with SO2. The isomeric acetate ion MeCO2- undergoes none of these reactions. The collisional activation mass spectra of I indicates that energized ions may undergo conversion to the more stable acetate anion.

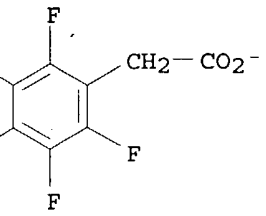
54006-37-0

RL: PRP (Properties)

(gas phase formation and mass spectrum of)

54006-37-0 CAPLUS

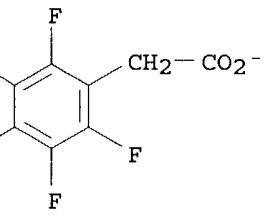
Benzeneacetic acid, 2,3,4,5,6-pentafluoro-, ion(1-) (9CI) (CA INDEX NAME)



5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
CESSION NUMBER: 1974:580329 CAPLUS
CUMENT NUMBER: 81:180329
TLE: Electroorganic reactions. II. Mechanism of the Kolbe electrolysis of substituted phenylacetate ions
THOR(S): Coleman, James P.; Lines, Robert; Utley, James H. P.; Weedon, Basil C. L.
RPORATE SOURCE: Dep. Chem., Queen Mary Coll., London, UK
URCE: Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1972-1999) (1974), (9), 1064-9
CODEN: JCPKBH; ISSN: 0300-9580
CUMENT TYPE: Journal
NGUAGE: English

The title reactions were examined by relating product distributions to electrochem. parameters, nuclear substitution, and the concentration of added NaClO4. The mechanism involved the adsorption of carboxylate ions; added anions and substituents caused surface effects which influenced the competition between radical and carbonium ion paths. For p-methoxyphenylacetate, oxidation was initiated by electron transfer from the aromatic nucleus. Relations between product distribution and structural, electrochem., and adsorption parameters, were derived from a steady-state kinetics anal.

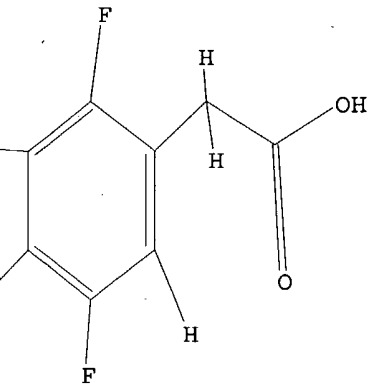
54006-37-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(Kolbe electrolysis of, mechanism of)
54006-37-0 CAPLUS
Benzeneacetic acid, 2,3,4,5,6-pentafluoro-, ion(1-) (9CI) (CA INDEX NAME)



loading C:\STNEXP4\QUERIES\0025c.str

6 STRUCTURE UPLOADED

d
6 HAS NO ANSWERS
6 STR



acture attributes must be viewed using STN Express query preparation.

s l26
REG1stRY INITIATED
stance data SEARCH and crossover from CAS REGISTRY in progress...
DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

PLE SEARCH INITIATED 16:04:24 FILE 'REGISTRY'
PLE SCREEN SEARCH COMPLETED - 17 TO ITERATE

0% PROCESSED 17 ITERATIONS 0 ANSWERS
RCH TIME: 00.00.01

L FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
JECTED ITERATIONS: 93 TO 587
JECTED ANSWERS: 0 TO 0

0 SEA SSS SAM L26

0 L27

126 full
REG1stRY INITIATED
tance data SEARCH and crossover from CAS REGISTRY in progress...
DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L SEARCH INITIATED 16:04:31 FILE 'REGISTRY'
L SCREEN SEARCH COMPLETED - 261 TO ITERATE

0% PROCESSED 261 ITERATIONS 1 ANSWERS
LCH TIME: 00.00.01

1 SEA SSS FUL L26

8 L29

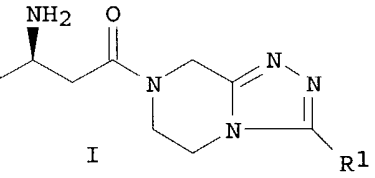
ibib abs hitstr

ANSWER 1 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
SSION NUMBER: 2004:857554 CAPLUS
JMENT NUMBER: 141:314625
LE: Process for the preparation of β-amino acid amide dipeptidyl peptidase-IV inhibitors
ENTOR(S): Angelaud, Remy; Armstrong, Joseph D., III; Askin, David; Balsells, Jaume; Hansen, Karl; Lee, Jaemoon; Maligres, Peter E.; Rivera, Nelo R.; Xiao, Yi; Zhong, Yong-Li
ENT ASSIGNEE(S): Merck & Co. Inc., USA
RCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
JMENT TYPE: Patent
GUAGE: English
ILY ACC. NUM. COUNT: 1
ENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004087650	A2	20041014	WO 2004-US8826	20040323

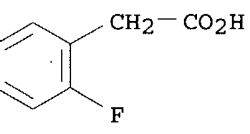
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

ORITY APPLN. INFO.: US 2003-457976P P 20030327

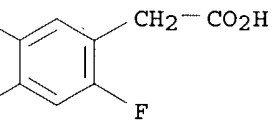


The invention provides a novel process for the preparation of chiral β-amino acid amides I (Ar is Ph which may be substituted by halogen, trifluoromethyl or trifluoromethoxy; R1 is H, alkyl or fluoroalkyl) which are inhibitors of dipeptidyl peptidase-IV and thereby useful for the treatment of Type 2 diabetes. The process involves acylation of 5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrazine (II) or a derivative with a (3R)-3-[(benzyloxy)amino]-4-arylbutanoic acid (III), followed by hydrogenolysis. In an example, I (Ar = 2,5-difluorophenyl, R1 = CF3) was prepared from II.HCl 3-trifluoromethyl derivative (prepared from hydrazine, Et trifluoroacetate, chloroacetyl chloride, and ethylenediamine) and III (Ar = 2,5-difluorophenyl) prepared from 2,5-difluorophenylacetic acid, Meldrum's acid, and O-benzylhydroxylamine hydrochloride.

209995-38-0, 2 4 5 Trifluorophenylacetic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for preparation of triazolopyrazine β-amino acyl derivs. as dipeptidyl peptidase-IV inhibitors)
209995-38-0 CAPLUS
Benzeneacetic acid, 2,4,5-trifluoro- (9CI) (CA INDEX NAME)



```
 s 209995-38-0/prep
           8 209995-38-0
     3220412 PREP/RL
1          2 209995-38-0/PREP
               (209995-38-0 (L) PREP/RL)

 s 209995-38-0/proc
           8 209995-38-0
     3579725 PROC/RL
2          0 209995-38-0/PROC
               (209995-38-0 (L) PROC/RL)

 d l31 1-2 ibib abs hitstr

1  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
CESSION NUMBER:         2004:331830  CAPLUS
CUMENT NUMBER:          140:339071
TLE:                    Allylation and oxidation process for the preparation
                        of trifluorophenylacetic acids from trifluorophenyl
                        halides and allyl bromide
VENTOR(S):              Ikemoto, Norihiro; Dreher, Spencer D.
TENT ASSIGNEE(S):       USA
URCE:                   U.S. Pat. Appl. Publ., 5 pp.
                        CODEN: USXXCO
CUMENT TYPE:            Patent
NGUAGE:                 English
MILY ACC. NUM. COUNT:   1
TENT INFORMATION:

   PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
   ---------------      ----   --------    --------------------     --------
   US 2004077901         A1    20040422    US 2003-680025           20031007
IORITY APPLN. INFO.:                       US 2002-416891P      P   20021008
HER SOURCE(S):          CASREACT 140:339071; MARPAT 140:339071
   Trifluorophenylacetic acids [e.g., (2,4,5-Trifluorophenyl)acetic acid] are
   prepared in high yield and selectivity by using a Grignard reagent (e.g.,
   isopropylmagnesium chloride) and an allylating agent (e.g., allyl bromide)
   to allylate a halotrifluorobenzene (e.g., 1-bromo-2,4,5-trifluorobenzene)
   to give an allyltrifluorobenzene (e.g., 1-allyl-2,4,5-trifluorobenzene)
   which is then subjected to catalytic (e.g., RuCl3) oxidation with an oxidant
   (e.g., sodium periodate).
   209995-38-0P, (2,4,5-Trifluorophenyl)acetic acid
   RL: SPN (Synthetic preparation); PREP (Preparation)
      (allylation and oxidation process for the preparation of trifluorophenylacetic
      acids from trifluorophenyl halides and allyl bromide)
   209995-38-0  CAPLUS
   Benzeneacetic acid, 2,4,5-trifluoro- (9CI)  (CA INDEX NAME)
```




```
1  ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
CESSION NUMBER:         2004:293442  CAPLUS
CUMENT NUMBER:          140:321111
TLE:                    Process for the synthesis of (trifluorophenyl)acetic
                        acids
VENTOR(S):              Armstrong, Joseph D.; Dreher, Spencer D.; Ikemoto,
                        Norihiro
TENT ASSIGNEE(S):       USA
URCE:                   U.S. Pat. Appl. Publ., 6 pp., which
                        CODEN: USXXCO
CUMENT TYPE:            Patent
```

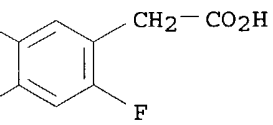
NGUAGE: English
MILY ACC. NUM. COUNT: 1
TENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004068141	A1	20040408	US 2003-679986	20031007
IORITY APPLN. INFO.:			US 2002-416790P P	20021008

HER SOURCE(S): CASREACT 140:321111; MARPAT 140:321111

Trifluorophenylacetic acids (e.g., 2,4,5-trifluorophenylacetic acid (I)) are prepared in high yield and selectivity by the trifluorophenylation of a dialkyl malonate (e.g., di-Et malonate) with a trifluorophenyl halide (e.g., 1-bromo-2,4,5-trifluorobenzene) in the presence of a deprotonating agent (e.g., sodium tert-butoxide) using a Cu(I) salt (e.g., cuprous chloride) as a catalyst to give a dialkyl (trifluorophenyl)malonate intermediate [e.g., di-Et 2-(2,4,5-trifluorophenyl)malonate] which is subjected to saponification with a base (e.g., NaOH) and decarboxylation of the (trifluorophenyl)malonic acid [e.g., 2-(2,4,5-trifluorophenyl)malonic acid] with an acid (e.g., aqueous hydrogen chloride) to produce I.

209995-38-0P, (2,4,5-Trifluorophenyl)acetic acid
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(process for the synthesis of (trifluorophenyl)acetic acids)
209995-38-0 CAPLUS
Benzeneacetic acid, 2,4,5-trifluoro- (9CI) (CA INDEX NAME)



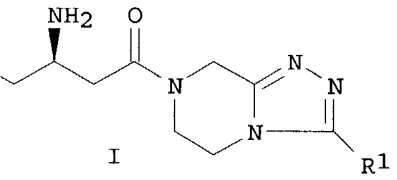
d 111 1-8 ibib abs hitstr

1 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
CESSION NUMBER: 2004:857554 CAPLUS
CUMENT NUMBER: 141:314625
TLE: Process for the preparation of β-amino acid amide dipeptidyl peptidase-IV inhibitors
VENTOR(S): Angelaud, Remy; Armstrong, Joseph D., III; Askin, David; Balsells, Jaume; Hansen, Karl; Lee, Jaemoon; Maligres, Peter E.; Rivera, Nelo R.; Xiao, Yi; Zhong, Yong-Li
TENT ASSIGNEE(S): Merck & Co. Inc., USA
URCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
CUMENT TYPE: Patent
NGUAGE: English
MILY ACC. NUM. COUNT: 1
TENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004087650	A2	20041014	WO 2004-US8826	20040323

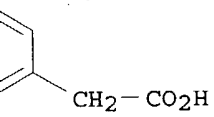
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

IORITY APPLN. INFO.: US 2003-457976P P 20030327

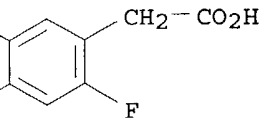


The invention provides a novel process for the preparation of chiral β-amino acid amides I (Ar is Ph which may be substituted by halogen, trifluoromethyl or trifluoromethoxy; R1 is H, alkyl or fluoroalkyl) which are inhibitors of dipeptidyl peptidase-IV and thereby useful for the treatment of Type 2 diabetes. The process involves acylation of 5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrazine (II) or a derivative with a (3R)-3-[(benzyloxy)amino]-4-arylbutanoic acid (III), followed by hydrogenolysis. In an example, I (Ar = 2,5-difluorophenyl, R1 = CF3) was prepared from II.HCl 3-trifluoromethyl derivative (prepared from hydrazine, Et trifluoroacetate, chloroacetyl chloride, and ethylenediamine) and III (Ar = 2,5-difluorophenyl) prepared from 2,5-difluorophenylacetic acid, Meldrum's acid, and O-benzylhydroxylamine hydrochloride.

85068-27-5, 2 5 Difluorophenylacetic acid **209995-38-0**, 2 4 5 **Trifluorophenylacetic acid**
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for preparation of triazolopyrazine β-amino acyl derivs. as dipeptidyl peptidase-IV inhibitors)
85068-27-5 CAPLUS
Benzeneacetic acid, 2,5-difluoro- (9CI) (CA INDEX NAME)



209995-38-0 CAPLUS
Benzeneacetic acid, 2,4,5-trifluoro- (9CI) (CA INDEX NAME)

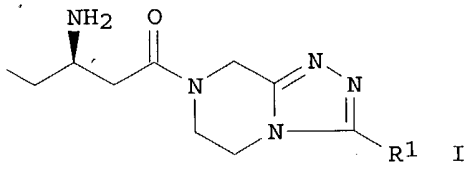


1 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
CCESSION NUMBER: 2004:824045 CAPLUS
CUMENT NUMBER: 141:332476
TLE: Process for preparation of chiral β-amino acid derivatives
VENTOR(S): Dreher, Spencer D.; Ikemoto, Norihiro; Njolito, Eugenia; Rivera, Nelo R.; Tellers, David M.; Xiao, Yi
TENT ASSIGNEE(S): Merck & Co., Inc, USA
URCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
CUMENT TYPE: Patent
NGUAGE: English
MILY ACC. NUM. COUNT: 1
TENT INFORMATION:

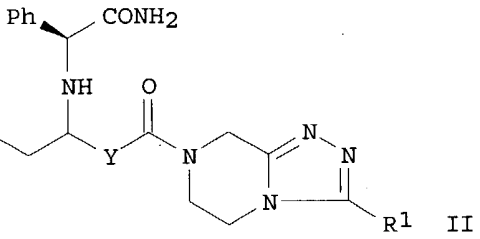
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004085661	A2	20041007	WO 2004-US8533	20040319

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

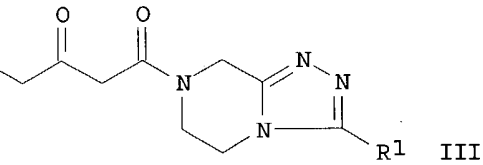
IORITY APPLN. INFO.: US 2003-457128P P 20030324
US 2003-511210P P 20031015



I



II



III

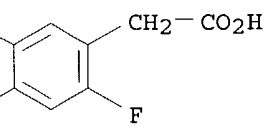
A process for the asym. synthesis of enantiomerically enriched β-amino acid derivs. I [R1 = H, or alkyl, unsubstituted or substituted with one to five fluorines; R2 = Ph, unsubstituted or independently substituted with one to five substituents: fluorine, trifluoromethyl, or trifluoromethoxy] in a suitable organic solvent is developed, with includes catalytic hydrogenation of Z-enamines II (Y = :CH), which was prepared by addition of L-phenylglycine amide to β-ketoesters III under acidic conditions, and subsequent catalytic hydrogenolysis of II (Y = CH2). Thus, β-ketoester III (R1 = CF3; R2 = 2,4,5-trifluorophenyl) obtained from 2,4,5-**trifluorophenylacetic acid** and 3-(trifluoromethyl)-5,6,7,8-tetrahydro[1,2,4]triazolo[4,4-α]pyrazine hydrochloride was added to L-phenylglycine amide to give Z-enamine II (R1 = CF3; R2 = 2,4,5-trifluorophenyl), which after catalytic hydrogenation in the presence of platinum dioxide, followed by hydrogenolysis with palladium dihydroxide as catalyst gave compound I (R1 = CF3; R2 = 2,4,5-trifluorophenyl) in 94.55% yield and 97% ee.

209995-38-0, 2,4,5-**Trifluorophenylacetic acid**

RL: RCT (Reactant); RACT (Reactant or reagent)
(asym. synthesis of chiral β-amino acid derivs. via addition of phenylglycine amide to triazolopyrazinyl β-ketoesters, followed by catalytic hydrogenation of enamines and catalytic hydrogenolysis)

209995-38-0 CAPLUS

Benzeneacetic acid, 2,4,5-trifluoro- (9CI) (CA INDEX NAME)



1 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

CESSION NUMBER:	2004:799587 CAPLUS
CUMENT NUMBER:	141:296029
TLE:	Process for preparation of [1,2,4]triazolo[4,3-a]pyrazine derivatives
VENTOR(S):	Ikemoto, Norihiro; Simmons, Bryon L.; Williams, J. Michael; Xu, Feng; Yang, Chunhua
TENT ASSIGNEE(S):	Merck & Co., Inc., USA
URCE:	PCT Int. Appl., 22 pp. CODEN: PIXXD2
CUMENT TYPE:	Patent
NGUAGE:	English
MILY ACC. NUM. COUNT:	1

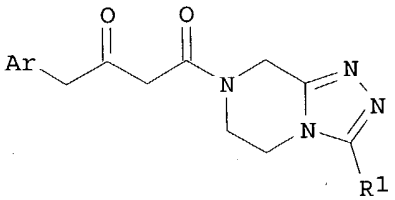
ENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004083212	A1	20040930	WO 2004-US7834	20040312

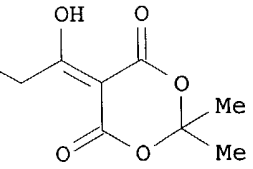
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

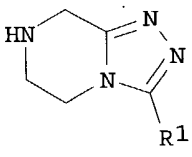
ORITY APPLN. INFO.: US 2003-455458P P 20030318



I



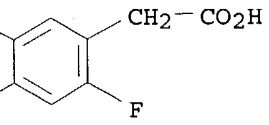
II



III

An process for the preparation of the title compds. represented by the formula I [R1 = H, (fluoro)alkyl; Ar = (un)substituted phenyl; or an acid salt thereof] in the presence of acid or base in a suitable organic solvent, which the process comprises the step of treating a compound of structural formula II with 5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrazine of structural formula III, is disclosed. For example, I (R1 = Cf3, Ar = 2,4,5-F3C6H2) was given in a multi-step synthesis starting from 2,4,5-**trifluorophenylacetic acid**. Thus, the present invention provides a process producing the title compound, which are useful in the synthesis of dipeptidyl peptidase-IV inhibitors for the treatment of type 2 diabetes (no data).

209995-38-0, 2,4,5-**Trifluorophenylacetic acid**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of [1,2,4]triazolo[4,3-a]pyrazine derivs.)
209995-38-0 CAPLUS
Benzeneacetic acid, 2,4,5-trifluoro- (9CI) (CA INDEX NAME)



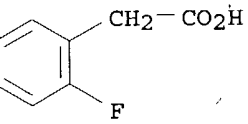
FERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

1 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
CESSION NUMBER: 2004:331830 CAPLUS
CUMENT NUMBER: 140:339071
TLE: Allylation and oxidation process for the preparation of trifluorophenylacetic acids from trifluorophenyl halides and allyl bromide

NTOR(S): Ikemoto, Norihiro; Dreher, Spencer D.
NT ASSIGNEE(S): USA
CE: U.S. Pat. Appl. Publ., 5 pp.
CODEN: USXXCO
MENT TYPE: Patent
UAGE: English
LY ACC. NUM. COUNT: 1
NT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004077901	A1	20040422	US 2003-680025		20031007
			US 2002-416891P	P	20021008

RITY APPLN. INFO.:
R SOURCE(S): CASREACT 140:339071; MARPAT 140:339071
Trifluorophenylacetic acids [e.g., (2,4,5-Trifluorophenyl)acetic acid] are prepared in high yield and selectivity by using a Grignard reagent (e.g., isopropylmagnesium chloride) and an allylating agent (e.g., allyl bromide) to allylate a halotrifluorobenzene (e.g., 1-bromo-2,4,5-trifluorobenzene) to give an allyltrifluorobenzene (e.g., 1-allyl-2,4,5-trifluorobenzene) which is then subjected to catalytic (e.g., RuCl3) oxidation with an oxidant (e.g., sodium periodate).
209995-38-0P, (2,4,5-Trifluorophenyl)acetic acid
RL: SPN (Synthetic preparation); PREP (Preparation)
(allylation and oxidation process for the preparation of trifluorophenylacetic acids from trifluorophenyl halides and allyl bromide)
209995-38-0 CAPLUS
Benzeneacetic acid, 2,4,5-trifluoro- (9CI) (CA INDEX NAME)

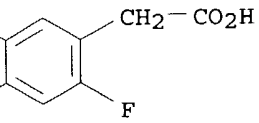


ANSWER 5 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
ESSION NUMBER: 2004:293442 CAPLUS
UMENT NUMBER: 140:321111
LE: Process for the synthesis of (trifluorophenyl)acetic acids
ENTOR(S): Armstrong, Joseph D.; Dreher, Spencer D.; Ikemoto, Norihiro
ENT ASSIGNEE(S): USA
RCE: U.S. Pat. Appl. Publ., 6 pp., which
CODEN: USXXCO
UMENT TYPE: Patent
GUAGE: English
ILY ACC. NUM. COUNT: 1
ENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004068141	A1	20040408	US 2003-679986		20031007
			US 2002-416790P	P	20021008

ORITY APPLN. INFO.:
ER SOURCE(S): CASREACT 140:321111; MARPAT 140:321111
Trifluorophenylacetic acids (e.g., 2,4,5-**trifluorophenylacetic acid** (I)) are prepared in high yield and selectivity by the trifluorophenylation of a dialkyl malonate (e.g., di-Et malonate) with a trifluorophenyl halide (e.g., 1-bromo-2,4,5-trifluorobenzene) in the presence of a deprotonating agent (e.g., sodium tert-butoxide) using a Cu(I) salt (e.g., cuprous chloride) as a catalyst to give a dialkyl (trifluorophenyl)malonate intermediate [e.g., di-Et 2-(2,4,5-trifluorophenyl)malonate] which is subjected to saponification with a base (e.g., NaOH) and decarboxylation of the (trifluorophenyl)malonic acid [e.g., 2-(2,4,5-trifluorophenyl)malonic acid] with an acid (e.g., aqueous hydrogen chloride) to produce I.
209995-38-0P, (2,4,5-Trifluorophenyl)acetic acid
RL: SPN (Synthetic preparation); PREP (Preparation)

(process for the synthesis of (trifluorophenyl)acetic acids)
209995-38-0 CAPLUS
Benzeneacetic acid, 2,4,5-trifluoro- (9CI) (CA INDEX NAME)



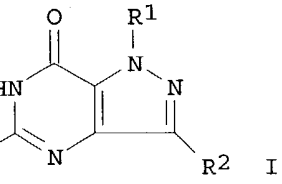
ANSWER 6 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

CESSION NUMBER:	2003:356304 CAPLUS
CUMENT NUMBER:	138:368899
TLE:	Preparation of pyrazolopyrimidinones as PDE9 inhibitors for treatment of insulin resistance syndrome and type 2 diabetes
VENTOR(S):	Fryburg, David Albert; Gibbs, Earl Michael
TENT ASSIGNEE(S):	Pfizer Products Inc., USA
URCE:	PCT Int. Appl., 104 pp. CODEN: PIXXD2
CUMENT TYPE:	Patent
NGUAGE:	English
MILY ACC. NUM. COUNT:	1

TENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003037432	A1	20030508	WO 2002-IB3754	20020912
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1444009	A1	20040811	EP 2002-762720	20020912
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US 2004023989	A1	20040205	US 2002-283814	20021029
IORITY APPLN. INFO.:			US 2001-336981P	P 20011102
			WO 2002-IB3754	W 20020912

HER SOURCE(S): MARPAT 138:368899



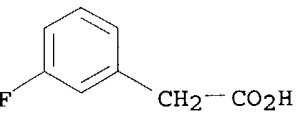
I

Pyrazolopyrimidinones I [R1 = H, alkyl; R2 = alkyl, cycloalkyl, heterocyclic; R3 = (un)substituted alkyl] were prepared for use as PDE9 inhibitors in treating insulin resistance syndrome (IRS), hypertension and/or type 2 diabetes. Thus, Me2CHCOMe was treated with EtO2CCO2Et to give Me2CHCOCH2CO2Et which was cyclized with N2H4 to give Et 5-isopropyl-1H-pyrazole-3-carboxylate. This ester was hydrolyzed to the acid, nitrated, amidated, and reduced to give 4-amino-5-isopropyl-1H-pyrazole-3-carboxamide. Cyclization of this amide with 3-ClC6H4CH2CO2H gave I [R1 = H, R2 = CHMe2, R3 = 3-ClC6H4CH2] which reduced plasma

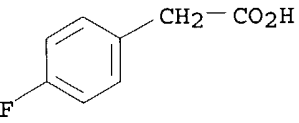
. glucose, triglycerides, and insulin at 10 mg/kg day for 5 days orally in mice.

IT **331-25-9**, 3-Fluorophenylacetic acid **405-50-5**, 4-Fluorophenylacetic acid **451-82-1**, 2-Fluorophenylacetic acid **658-93-5**, 3,4-Difluorophenylacetic acid **1878-65-5**, 3-Chlorophenylacetic acid **1878-66-6**, 4-Chlorophenylacetic acid **2444-36-2**, 2-Chlorophenylacetic acid **5807-30-7**, 3,4-Dichlorophenylacetic acid **6575-24-2**, 2,6-Dichlorophenylacetic acid **37777-76-7**, 2-Chloro-6-fluorophenylacetic acid **81228-09-3**, 2,4-Difluorophenylacetic acid **85068-27-5**, 2,5-Difluorophenylacetic acid **85068-28-6**, 2,6-Difluorophenylacetic acid **105184-38-1**, 3,5-Difluorophenylacetic acid **114152-23-7**, 2,3,6-**Trifluorophenylacetic acid 145689-41-4**, 2,3-Difluorophenylacetic acid **177985-32-9**, 2-Chloro-4-fluorophenylacetic acid **194943-83-4**, 2-Fluoro-3-trifluoromethylphenylacetic acid **209991-63-9 239135-52-5**, 5-Fluoro-2-trifluoromethylphenylacetic acid **521300-44-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of pyrazolopyrimidinones as PDE9 inhibitors for treatment of insulin resistance syndrome and type 2 diabetes)

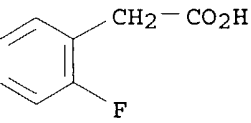
RN 331-25-9 CAPLUS
CN Benzeneacetic acid, 3-fluoro- (9CI) (CA INDEX NAME)



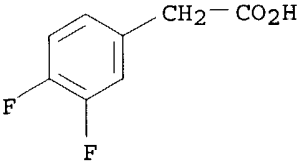
RN 405-50-5 CAPLUS
CN Benzeneacetic acid, 4-fluoro- (9CI) (CA INDEX NAME)



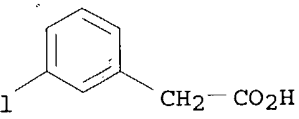
RN 451-82-1 CAPLUS
CN Benzeneacetic acid, 2-fluoro- (9CI) (CA INDEX NAME)



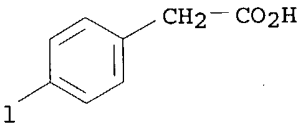
RN 658-93-5 CAPLUS
CN Benzeneacetic acid, 3,4-difluoro- (9CI) (CA INDEX NAME)



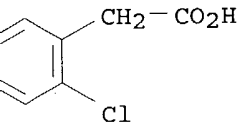
RN 1878-65-5 CAPLUS
CN Benzeneacetic acid, 3-chloro- (9CI) (CA INDEX NAME)



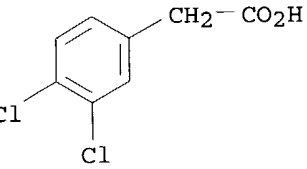
N 1878-66-6 CAPLUS
N Benzeneacetic acid, 4-chloro- (9CI) (CA INDEX NAME)



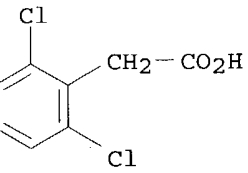
N 2444-36-2 CAPLUS
N Benzeneacetic acid, 2-chloro- (9CI) (CA INDEX NAME)



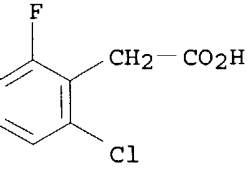
N 5807-30-7 CAPLUS
N Benzeneacetic acid, 3,4-dichloro- (9CI) (CA INDEX NAME)



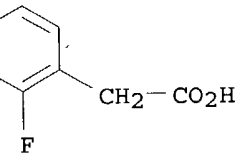
N 6575-24-2 CAPLUS
N Benzeneacetic acid, 2,6-dichloro- (9CI) (CA INDEX NAME)



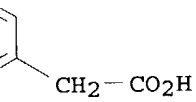
N 37777-76-7 CAPLUS
N Benzeneacetic acid, 2-chloro-6-fluoro- (9CI) (CA INDEX NAME)



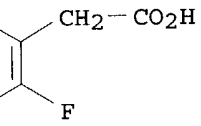
N 81228-09-3 CAPLUS
N Benzeneacetic acid, 2,4-difluoro- (9CI) (CA INDEX NAME)



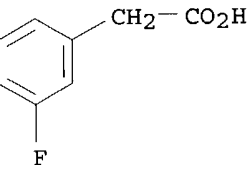
85068-27-5 CAPLUS
Benzeneacetic acid, 2,5-difluoro- (9CI) (CA INDEX NAME)



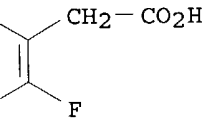
85068-28-6 CAPLUS
Benzeneacetic acid, 2,6-difluoro- (9CI) (CA INDEX NAME)



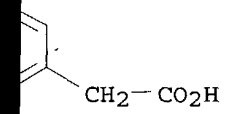
105184-38-1 CAPLUS
Benzeneacetic acid, 3,5-difluoro- (9CI) (CA INDEX NAME)



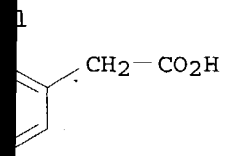
114152-23-7 CAPLUS
Benzeneacetic acid, 2,3,6-trifluoro- (9CI) (CA INDEX NAME)



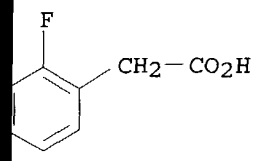
145689-41-4 CAPLUS
Benzeneacetic acid, 2,3-difluoro- (9CI) (CA INDEX NAME)



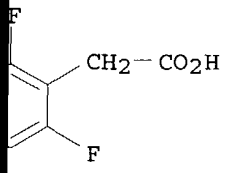
77985-32-9 CAPLUS
enzeneacetic acid, 2-chloro-4-fluoro- (9CI) (CA INDEX NAME)



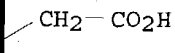
94943-83-4 CAPLUS
enzeneacetic acid, 2-fluoro-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)



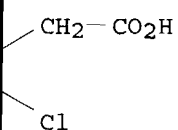
209991-63-9 CAPLUS
Benzeneacetic acid, 2,4,6-trifluoro- (9CI) (CA INDEX NAME)



239135-52-5 CAPLUS
Benzeneacetic acid, 5-fluoro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



521300-44-7 CAPLUS
Benzeneacetic acid, 2-chloro-6-methyl- (9CI) (CA INDEX NAME)



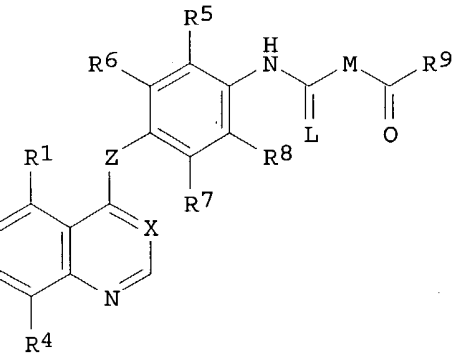
ENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 7 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
SION NUMBER: 2003:5931 CAPLUS
ENT NUMBER: 138:73182
: Preparation of quinoline derivatives and quinazoline derivatives inhibiting autophosphorylation of hepatocyte growth factor receptor as antitumor agents
TOR(S): Fujiwara, Yasunari; Senga, Terufumi; Nishitoba, Tsuyoshi; Osawa, Tatsushi; Miwa, Atsushi; Nakamura, Kazuhide
T ASSIGNEE(S): Kirin Beer Kabushiki Kaisha, Japan
E: PCT Int. Appl., 441 pp.
CODEN: PIXXD2
ENT TYPE: Patent
AGE: Japanese
Y ACC. NUM. COUNT: 1
T INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003000660	A1	20030103	WO 2002-JP6239	20020621
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1411046	A1	20040421	EP 2002-738777	20020621
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

RITY APPLN. INFO.: JP 2001-190238 A 20010622
WO 2002-JP6239 W 20020621

R SOURCE(S): MARPAT 138:73182



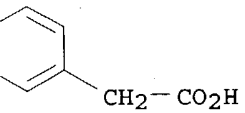
I

The title compds. represented by the formula (I) or pharmaceutically acceptable salts or solvates thereof [wherein X = CH, N; Z = O, S; L = O, S; M is CR10R11 (R10, R11 = H, alkyl, alkoxy) or NR12 (R12 = H, alkyl); R1, R2, R3 = H, HO, halo, NO2, (un)substituted NH2, (un)substituted C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, (un)substituted C1-6 alkoxy, (un)saturated and (un)substituted 3 to 8-membered carbocyclic or heterocyclic group; R4 = H; R5-R8 = H, halo, C1-4 alkyl, C1-4 alkoxy; R9 = C1-6 alkyl optionally substituted by -T-R15 or -NR16R17 (wherein T = oxygen, sulfur, NH; R14 = (un)substituted and (un)saturated 3 to 8-membered carbocyclic or heterocyclic

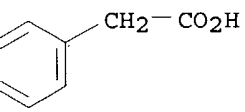
group; and R15-R17 = C1-6 alkyl, (un)substituted and (un)saturated 3 to 8-membered carbocyclic or heterocyclic group), -NR18R19 (R18, R19 = H, optionally substituted C1-6 alkyl, (un)substituted and (un)saturated 3 to 8-membered carbocyclic or heterocyclic group)] are prepared These compds. are useful for the treatment of malignant tumors such as stomach cancer, brain tumor, large intestine (colorectal) cancer, pancreatic cancer, lung cancer, renal cancer, ovarian cancer, and prostate cancer. Thus, 1.89 mL phenylacetyl chloride and 2.09 g potassium thiocyanate were dissolved in 15 mL MeCN, stirred at 80° for 1 h, and extracted with CHCl3, followed by evaporation of CHCl3 under reduced pressure to give crude phenylacetyl thiocyanate which was dissolved in toluene/EtOH (1/1) and stirred with 3.03 g 4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-fluoroaniline to give N-[4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-fluorophenyl]-N'-(phenylacetyl)thiourea (II). II showed IC50 of 0.0087 μM for inhibiting Met phosphorylation of epidermoid carcinoma cell (A431) stimulated by human recombinant hepatocyte growth factor (HGF). II at 100 mg/kg inhibited by 70% the proliferation of human brain tumor cell (U87MG) transplanted in nude mice.

331-25-9, 3-Fluorophenylacetic acid **405-50-5**, 4-Fluorophenylacetic acid **451-82-1**, 2-Fluorophenylacetic acid **658-93-5**, 3,4-Difluorophenylacetic acid **1878-66-6**, 4-Chlorophenylacetic acid **2444-36-2**, 2-Chlorophenylacetic acid **6575-24-2**, 2,6-Dichlorophenylacetic acid **81228-09-3**, 2,4-Difluorophenylacetic acid **85068-27-5**, 2,5-Difluorophenylacetic acid **85068-28-6**, 2,6-Difluorophenylacetic acid **105184-38-1**, 3,5-Difluorophenylacetic acid **114152-23-7**, 2,3,6-**Trifluorophenylacetic acid** **145689-41-4**, 2,3-Difluorophenylacetic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of quinoline derivs. inhibiting autophosphorylation of hepatocyte growth factor receptor as antitumor agents)

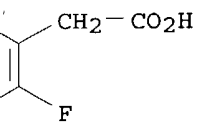
331-25-9 CAPLUS
Benzeneacetic acid, 3-fluoro- (9CI) (CA INDEX NAME)



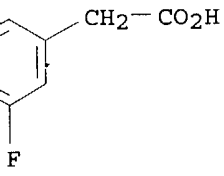
405-50-5 CAPLUS
Benzeneacetic acid, 4-fluoro- (9CI) (CA INDEX NAME)



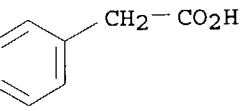
451-82-1 CAPLUS
Benzeneacetic acid, 2-fluoro- (9CI) (CA INDEX NAME)



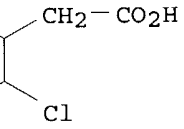
658-93-5 CAPLUS
Benzeneacetic acid, 3,4-difluoro- (9CI) (CA INDEX NAME)



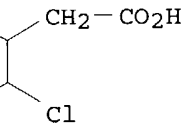
1878-66-6 CAPLUS
Benzeneacetic acid, 4-chloro- (9CI) (CA INDEX NAME)



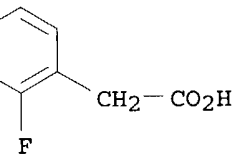
2444-36-2 CAPLUS
Benzeneacetic acid, 2-chloro- (9CI) (CA INDEX NAME)



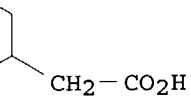
6575-24-2 CAPLUS
Benzeneacetic acid, 2,6-dichloro- (9CI) (CA INDEX NAME)



81228-09-3 CAPLUS
Benzeneacetic acid, 2,4-difluoro- (9CI) (CA INDEX NAME)

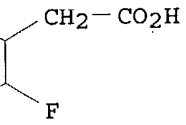


85068-27-5 CAPLUS
Benzeneacetic acid, 2,5-difluoro- (9CI) (CA INDEX NAME)

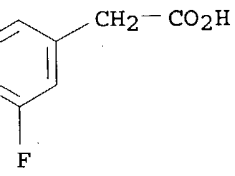


85068-28-6 CAPLUS

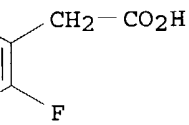
Benzeneacetic acid, 2,6-difluoro- (9CI) (CA INDEX NAME)



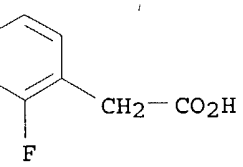
105184-38-1 CAPLUS
Benzeneacetic acid, 3,5-difluoro- (9CI) (CA INDEX NAME)



114152-23-7 CAPLUS
Benzeneacetic acid, 2,3,6-trifluoro- (9CI) (CA INDEX NAME)



145689-41-4 CAPLUS
Benzeneacetic acid, 2,3-difluoro- (9CI) (CA INDEX NAME)



RENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 8 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
SSION NUMBER: 2002:658395 CAPLUS
MENT NUMBER: 137:193937
E: A method of forming resist patterns in a semiconductor device and a semiconductor washing liquid used in said method
NTOR(S): Hyon, Man-Sok
NT ASSIGNEE(S): S. Korea
CE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
MENT TYPE: Patent
UAGE: English
LY ACC. NUM. COUNT: 1
NT INFORMATION:

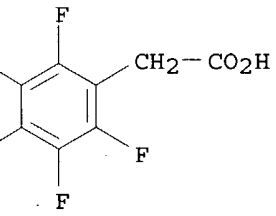
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2002067304 A1 20020829 WO 2002-KR188 20020207
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
KR 2002068679 A 20020828 KR 2001-8876 20010222
US 2004072108 A1 20040415 US 2003-469175 20030821
IORITY APPLN. INFO.: KR 2001-8876 A 20010222
WO 2002-KR188 W 20020207

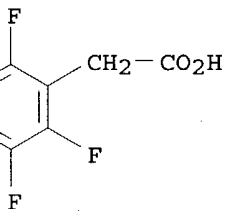
This invention relates to a resist patterning method preventing resist pattern collapse, which is occurred as the min. pattern size becomes smaller, in photolithog. for making semiconductor device and also introduce novel rinse liquid in which fluorocarbon surfactant having hydrophobic group and hydrophilic group is dissolved in deionized H2O and have low surface tension for preventing resist pattern collapse in wet development method. With this invention, the fine resist pattern can be obtained without resist pattern collapse from conventional wet development method with no addnl. specific instrument for prevention of resist pattern collapse.

653-21-4, 2,3,4,5,6-Pentafluorophenylacetic acid
114152-23-7, 2,3,6-**Trifluorophenylacetic acid**
RL: NUU (Other use, unclassified); USES (Uses)
(method of forming resist patterns in semiconductor device and semiconductor washing liquid used in said method)

653-21-4 CAPLUS
Benzeneacetic acid, 2,3,4,5,6-pentafluoro- (9CI) (CA INDEX NAME)



114152-23-7 CAPLUS
Benzeneacetic acid, 2,3,6-trifluoro- (9CI) (CA INDEX NAME)



CFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT